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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/137,842	08/21/1998	YOUNG SANG BAEK	YHK-007	3333

7590 05/01/2002

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EXAMINER

DINH, DUC Q

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 05/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/137,842

Applicant(s)

BAEK ET AL.

Examiner

DUC Q DINH

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2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-9, and renumbered claims 11, 13-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 4 is/are allowed.
- 6) ☒ Claim(s) 7-9, and renumbered claims 11, 13-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 12, 14-20 have been renumbered as 11, 13-19.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Renumbered claims 7-9 and 11, 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art, hereinafter AAPA (page Fig. 1-6, page 1-7), in view of Moriconi (5,546,098) and further in view of Godfrey et al. (5,736,973).

In reference to claim 7, the AAPA discloses a notebook computer with a panel module 22 comprising a display module 10 with all the limitations in claim 7 but fails to disclose that the timing control circuit and backlight driver is integrated into a printed circuit board. Godfrey

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discloses an integrated display system in which a backlight driver is integrated with timing circuit in a printed circuit board in Fig. 3.

It would have been obvious for one of ordinary skill in the art to provide the printed circuit board of Godfrey in the device of the AAPA because it would provide a compact and space efficient circuit for the system.

In addition, absent a showing of critically and/or unexpected result, it would been obvious to one of ordinary skill in the art to integrate the timing control circuit and the backlight driver into a printed circuit board as desired as was judicially recognized In re Murray, 19 C.C.P.A. (Patents) 739, 53 F.2D 541, 11 USPQ 155; In re Zabel et al. , 38 C.C.P.A (Patents) 832, 186 F.2d 735, 88 USPQ 367, which recognizes that the integrating of well known element is normally not desired toward patentable subject matter.

In reference to renumbered claims 11, 13, the AAPA in view of Godfrey discloses everything with the exception that the integrated timing control circuit and backlight driver circuit being on located in the system body rather than the display module as recited in claim 12. However, Moriconi discloses that the display circuitry may be located in one module, and the scanning drivers and data drivers are located on another module.

It would having obvious to utilize the teaching of Moriconi, i.e., providing AAPA 's and Godfrey integrating circuit (timing control circuit and backlight driver circuit) in the main body of the system because this would allow the a variety of different types of display module to be used (col. 2, lines 58-63).

In addition absent a showing of critically and/or unexpected result, it would been obvious to one of ordinary skill in the art to relocate the timing control circuit as desired as was judicially

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recognized with IN RE JAPIKEE USPQ 70 (CCPA 1950), which recognizes that the relocation of well known element is normally not desired toward patentable subject matter.

In reference to claim 8, refer to the previous rejection. In addition, the AAPA discloses that the FPC 21 is a flexible printed film.

In reference to claim 9, the AAPA discloses a FPC 21 in Fig. 5.

In reference to renumbered claim 14, Moricono disclose the display control board 41 in Fig. 4.

In reference to renumbered claims 15-17, the AAPA discloses the display 10 in Fig. 3 and 5 having driving circuit inherently mounted in a circuit board.

In reference to renumbered claims 18-19, Moriconi disclose in Fig. 1 a laptop computer having a keyboard with a matrix display module that can be rotated between an open and closed position.

Response to Arguments

4. Applicant's arguments filed on 2/28/02 have been fully considered but they are not persuasive. Applicant argues that "the AAPA, Moriconi and Godfrey do no teach or suggest at least a feature of a timing control unit located on a module control board that also have a backlight driver unit driver... as recited in claim 7. Further the asserts combination fails to teaches or suggests a notebook computer having a body module with a main printed circuit board ... and wherein the module control board drives the back light unit and combinations thereof as recited in claim 12. It would not have been obvious to combine Godfrey with AAPA and Moriconi... even if AAPA, Moriconi and Godfrey had been combined, the combination would

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not have resulted in the claimed invention recited in claims 7 and 12... the combination would not result in at least feature of a module control board or main printed circuit board in a panel module having timing control unit for driving the drivers and a backlight unit driver for driving the backlight unit...as in claim 7 and a notebook computer having a body module with a main printed circuit board... and wherein the driving circuit is a module control board mounted on the main printed circuit board... as recited in claim 12". However, Godfrey discloses an integrated circuit for the backlight driver and it would have been obvious for making the integrating of well known element is normally not desired toward patentable subject matter. In addition, Moriconi teaches that the display control circuit for driving the drivers in the main body of the system and it would have been obvious for relocation of well known element is normally not desired toward patentable subject matter. Therefore, the rejection is maintained.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUC Q DINH** whose telephone number is **(703) 306-5412**. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:


(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,
Arlington, Va Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

DUC Q DINH
Examiner
Art Unit 2674
DQD
April 30, 2002



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600